

Simplify JTAG debugging with JTAG Switch Module for MTCA systems

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The NAT-JSM is an MTCA compliant JTAG switch module. It's flexible design makes it compatible with most of today's MTCA chassis providing a JSM slot.

Miss-Insertion protection

The module detects whether it is inserted into an AMC, MCH or JSM slot. Only if a JSM slot is detected the output drivers are turned on. The only prerequisite for miss-insertion protection is that the pinout of the connector follows the basic rules of the AMC connector.

Flexible Pinout

The JSM module can be adapted to nearly any existing JSM system connector by configuration of the onboard FPGA as long as it is based on the AMC connector layout.

Auto configuration versus manual configuration

By default the JSM module automatically arbitrates the JTAG master port and the slave port is selected by the TAP controller. The automatic configuration can be overruled at any time by manual configuration through front panel elements.

Key Features:

- JTAG download from MCH via WEB Interface
- JTAG programming connector at front panel
- Automatic arbitration between JTAG Masters
- Target selection through JTAG information
- Overrule of automatic operation and dedicated selection of JTAG target by front panel elements
- Multiple JSM Pinout configurations via FPGA
- Power supply through MCH power channels or power module SMP power
- Minimal power consumption

Summary

For all debug requirements using multiple JTAG connections and requiring local but also remote access, the NAT-JSM is the solution.

It can be adapted to the different pinning of the JSM connectors in MTCA chassis of different vendors.

It also enhances the access to FPGAs of Lattice and FPGAs, as no external probe is needed at all. All JTAG devices can be selected locally but also remotely via Web interface.

For all other JTAG devices in a MTCA system, only one JTAG probe is needed connected to the front panel of the NAT-JSM. Also here the selection of the JTAG devices can be done locally or remotely via Web interface.

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